

CLAIMS

1. (Added) An image processing apparatus of correcting the color of a predetermined range of a pixel signal for each pixel included in an input image signal, comprising:

target color setting means of setting a target color depending on which the color of said pixel signal is corrected, and

color conversion means of carrying out correction to make the color of said pixel signal coincident with or close to said target color by using the luminance component in the color of said pixel signal, two chromaticity components excluding said luminance component in the color of said pixel signal, and said target value, wherein

said color conversion means determines said correction degree by using not only said two chromaticity components of said pixel signal to be corrected but also said luminance component of said pixel signal to be corrected.

2. An image processing apparatus in accordance with claim 1, wherein said color conversion means comprises:

intensity determination means of generating a correction intensity that is small on the periphery of the

color region of said specific range set on the basis of the luminance component and the two chromaticity components excluding said luminance component in the color of said pixel signal and large in the vicinity of the central portion of said region, and

correction means of making the color of said pixel signal coincident with or close to said target color depending on said correction intensity having been generated.

3. An image processing apparatus in accordance with claim 2, wherein said intensity determination means comprises:

first function generation means of outputting a candidate of a first correction intensity for said luminance signal,

second and third function generation means of outputting candidates of second and third correction intensities for said two chromaticity components, respectively, and

synthesizing means of synthesizing the candidates of said first, second and third correction intensities and outputting the result as said correction intensity.

4. The image processing apparatus in accordance

with claim 2, wherein said intensity determination means comprises:

first function generation means of outputting a candidate of a first correction intensity for said luminance signal,

two-dimensional function generation means of outputting a second correction intensity on the basis of a two-dimensional function typified by an ellipse using said two chromaticity components, and

synthesizing means of synthesizing the candidates of said first and second correction intensities and outputting the result as said correction intensity.

5. The image processing apparatus in accordance with claim 2, wherein said intensity determination means comprises:

first function generation means of outputting a candidate of a first correction intensity for said luminance signal,

first polar coordinate conversion means of converting said two chromaticity components into a hue signal and a saturation signal,

second function generation means of outputting a candidate of a second correction intensity for said hue signal,

third function generation means of outputting a candidate of a third correction intensity for said saturation signal, and

synthesizing the candidates of said first, second and third correction intensities and outputting the result as said correction intensity.

6. The image processing apparatus in accordance with claim 2, wherein said correction means corrects each of said two chromaticity components to a value obtained when each of said two chromaticity components and two target chromaticity values output from said target color setting means are internally divided depending on said correction intensity.

7. The image processing apparatus in accordance with claim 2, wherein

said correction means has second polar coordinate conversion means of converting said two chromaticity components into a hue signal and a saturation signal, and

said correction means corrects said hue signal and said saturation signal output from said second polar coordinate conversion means to a value obtained when said hue signal and said saturation signal and the target hue signal and the target saturation signal output from said

target color setting means are internally divided depending on said correction intensity.

8. The image processing apparatus in accordance with claim 2, wherein

said intensity determination means outputs a hue correction intensity for hue correction and a saturation correction intensity for saturation correction,

said correction means has second polar coordinate conversion means of converting said two chromaticity components into a hue signal and a saturation signal,

hue correction means of correcting said hue signal having been converted to a value obtained when said hue signal and the target hue value output from said target color setting means are internally divided depending on said hue correction intensity, and

saturation correction means of correcting said saturation signal having been converted to a value obtained when said saturation signal and the target saturation value output from said target color setting means are internally divided depending on said saturation correction intensity.